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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,995	09/24/2003	Se Eun Chun	CU-3368 RJS	6203

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LADAS & PARRY LLP
224 SOUTH MICHIGAN AVENUE
SUITE 1600
CHICAGO, IL 60604

EXAMINER

GOKHALE, SAMEER K

ART UNIT	PAPER NUMBER
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2629

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/669,995	Applicant(s) CHUN ET AL.	
	Examiner Sameer K. Gokhale	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the phrase "A liquid crystal display having a conversion board for basically receiving...." On lines 1-2 renders the claim(s) indefinite because the term "basically" is indefinite because it seems to be offering a non-definite summary of what follows it, and it is also not clear if it is meant to modify the term "receiving" or a larger clause.

Given the above rejection for indefiniteness, the following claim rejections are based on the interpretation of the claim as best understood by the examiner.

Claim Rejections - 35 USC § 102

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(e) as being anticipated by Wu (US 6,690,368).

Regarding claim 1, Wu teaches a liquid crystal display (see col. 1, lines 17-18) having a conversion board (Fig. 1, device 110 constitutes a conversion board) for basically receiving an outside power supply (Fig. 1, device 110 inherently receives outside power in order to operate) and a digital data signal including a dot signal (see

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col. 1, lines 30-35, device 110 is receiving a LVD signal which is a digital signal, and it includes the dot signal, or video signal), wherein the conversion board comprises; a digital signal receiver for receiving the outside power supply and the digital data signal including the dot signal (Fig. 1, see col. 1, lines 30-35, where device 110 is the digital signal receiver and as discussed above receives outside power and a digital data signal including a dot signal); and a comparator for comparing whether a frequency of a dot signal is higher than a frequency used in a driving device for the liquid crystal display or not (see col. 3, lines 34-43, where there is inherently a comparator doing the comparison of the frequency of the of the dot signal, or video signal, and in checking to see if it matches the display signal settings provided in the display monitor, it is therefore also checking to see if the input signal frequency is higher or lower than the display signal settings).

Regarding claim 3 dependent on claim 1, Wu teaches a display wherein in order to determine the frequency of the dot signal, either a vertical frequency signal or a horizontal frequency signal included in the digital data signal is applied to the comparator (see col. 3, lines 34-43).

Allowable Subject Matter

4. Claim 2 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

5. The following is a statement of reasons for the indication of allowable subject matter: Regarding claim 2, the major difference between the teaching of the prior art of record (Wu) and the instant invention is that said prior art does not teach a display where "when the frequency of the dot signal is higher than a minimum frequency capable of operating a timing controller or a driving device, the frequency of the dot signal is divided by 2, the 2-divided signals are outputted through two channels and the digital signal is applied to a module of the LCD by means of the two channels, and when the frequency of the dot signal is lower than a minimum frequency capable of operating a timing controller or a driving device, the dot signal is outputted through one channel and the digital signal is applied to the module of the LCD by means of one channel."

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Song (US 6,836,268) teaches a device for interfacing video information to a display where the frequency is compared to a factory mode setting. Narui et al. (US 6,816,131) and (US 6,313,813) teaches a method of adapting a received digital signal to a display. Uno et al. (US 6,025,817) teaches a method of analyzing the frequency of an incoming signal before converting it for display).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sameer K. Gokhale whose telephone number is (571) 272-5553. The examiner can normally be reached on M-F 8:00 AM - 4:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SKG
April 14, 2006

Sameer Gokhale
Examiner
Art Unit 2629

AMR A. AWAD
PRIMARY EXAMINER

A handwritten signature in black ink, appearing to read "Amr A. Awad", with a stylized flourish at the end.